

Summer 1976 — A Preliminary Review of the Effects on Lepidoptera of the Long Drought, Based on Light Trap Records

By E. H. WILD*

This year has seen climatic conditions never before experienced by entomologists in this country since before the days of Moses Harris. A preliminary account of some of my own observations to date, based mainly on trap results in my garden at Selsdon, near Croydon, will, I hope, encourage others to give further details of this extraordinary summer. Results fall into four categories: The numbers of species which rarely, or never, produce second broods, that have done so this year: Very early dates of emergence: Evidence that continuous high day and night temperatures have caused species to wander far from their usual habitats: The very large numbers of some species, especially in the second broods, and the surprising absence of others.

1. *Cupidio minimus* (Fuessly) rarely produces a second brood in England and when it does numbers are small. The small and erratic colony at Addington showed a strong emergence on 27th July with over 40 counted in mint condition, as I crossed their habitat.

Agrotis exclamationis (L.) occasionally throws up a small second brood. This year it appeared in the trap for the first time on 15th May, reached its peak in the first week of July (average 533 per night) and numbers dropped to two or three by the end of the month. By the 6th August fresh specimens arrived and by the third week were steady in the sixties. Last year only two were seen after July.

Laothoe populi (L.) reappeared fresh on 5th August and there have been 14 others to date (23rd August).

Lucania pallens (L.). Total trap figures for the first brood were 214 (7th June-17th July). They reappeared again on 7th August and up to the 23rd have totalled 2,643. This is rather astonishing in view of the poor condition of grasses since June.

Other species that have had small second generations are *Ourapteryx sambucaria* (L.) (19th to 23rd August), *Eupithicia pulchellata* (Stephens) (22nd August and continuing), *Caradrina morpheus* (Hufnagel) (two on 21st August) and *Polychrisia moneta* (Fabricius) (19th and 21st August).

2. Very early dates for some autumnal species are: *Catocala nupta* (L.), 18th July; *Amphipyra pyramidea* (L.), 5th July; *A. tragopoginis* (Clerck), 16th July; *Citria lutea* (Ström.), 15th August and *Acleris cristana* (D. & S.), 15th June.

3. Wanderers that have shown up include *Argynnis adippe* (L.) on my buddleia on 6th July. *Calamotropha paludella* (Hübner) (5th July) and *Nonagria sparganii* (Esper) (23rd August). I do not know of any of their foodplants locally. The first is I believe a new record for this side of Surrey, while

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the second is an addition to the Croydon list of Evans and Evans. On 26th June an unexpected visitor was *Apetelealni* (L.). I have written elsewhere of the *Calimorpha dominula* (L.) seen by Dr. McNulty and me at Abinger Hammer. On the debit side there have been no *Sphinx ligustri* (L.) this year in Selsdon where it is usually common.

4. The numbers of insects in the trap this year have been incredible. From the 25th June to 5th July the average per night was 1,308. Maximum 1,640, minimum 1,069. Prior to this the 1,000 level has only been passed on four nights in the last five years. On the 26th June 113 species of macro were recorded. The average species per night for the above dates was 89. A comparison with the last two years is revealing:

	June	July
1974	4,475	4,479
1975	3,333	7,896
1976	14,108	13,755

Bearing in mind the mild winter, the old adage "That a mild winter yields a poor season to follow", is not true in this case. It is probably true that moth populations are usually much greater than we imagine in the lean years and that it only needs the right flying conditions to bring them out. In June, 1973 my trap totals for the month were 5,468, of which 2,638 were recorded on the night of 26th (the record for my garden). On that night the lowest temperature was 69°F. and the R.H. 96%

Readers will remember that on some nights this year collecting in woodlands was all but impossible after about 23.30 hours because of the sheer volume of insects. We shall pay for it next year as we count the cost of colonies and species destroyed by fire. How much of our heathlands will never recover but will be taken over by that horrid bracken?

A NEW FORM OF *CERCOPIS VULNERATA* ILL. (HEMIPTERA-HOMOPTERA: CICADOIDEA). — In May of 1975, while in the Cranleigh area of Surrey, I found a small number of a new form of *C. vulnerata* with grey-brown and black markings instead of the usual red and black. One of these specimens was sent to Dr. W. J. Le Quesne who confirmed that, to the best of his knowledge, it had not been previously recorded; this specimen has now been lodged with the British Museum (Natural History). Also in this area was a pink and black form.

I returned to the same area this June, 1976, and found both the brown form and the pink intermediate form, in both sexes, from an area covering a $\frac{1}{4}$ square mile. On this visit I collected a number of females and have set up individual cages to begin looking at the genetics of this new form and am now waiting until spring and, hopefully, the next generation.

If anyone has come across these forms before I would very much appreciate hearing about them. — DIANNE O. GIBSON, High Close, Thorsway, Wirral, Merseyside, L48 2JJ.